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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/647,917
Filing Date: August 26, 2003
Appellant(s): MIELE, PHILIP FRANCIS

MAILED
DEC 19 2007
GROUP 1700

Robert D. Touslee
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10-23-07 appealing from the Office action mailed
06/04/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct. However, on reconsideration, the rejections under 35 U.S.C. § 112 are withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

| | | |
|-----------|-----------------|---------|
| 5,914,365 | CHANG ET AL. | 06-1999 |
| 5,578,371 | TAYLOR ET AL. | 11-1996 |
| 6,071,994 | HUMMERICH ET AL | 06-2000 |

5,178,706

NISHIBARA ET AL.

01-1993

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (US 5914365) in view of Taylor et al (US 5578371).

Chang teaches the basic claimed invention including polymer fiber material in the form of a mat (comprised of polymer fibers such as acrylic, polyamide, or polyester ones, in 50 to 97% in the mat, col. 6, lines 55-68, meeting consisting essentially of language per instant claim 1 and polyester per claims 11-13) said polymer fibers being bonded by a specific weight amount of a formaldehyde latex binder (col. 6, lines 10-15 and lines 45-50) per instant claim 1. To claims 2 and 8-10, similar compositions having similar properties such as acrylic copolymers and SBR (embraces acrylonitrile, a rubber of SBR) and SMA are employed within the binder (Table 2, Examples 2-3, col. 2, lines 20-45, col.7, lines 40-45).

Chang does not teach including a bisulfite compound of specific amounts per instant claim 1 or claims 3-10, ammonium bisulfite of similar composition- col. 4, lines 27-65, Table 1, per claims 4-8, 11-13.

Taylor teaches urea or phenol formaldehyde binder compositions for fibrous mats, said composition including a bisulfite, such as ammonium sulfite, to lower formaldehyde emissions. (Abstract, col. 3, lines 24-35, line 60- col. 4, line 19; col. 4, lines 27-68; col. 6, lines 23-30). See also concerning claims 3-10, ammonium bisulfite of similar composition- col. 4, lines 27-65; see Table 1 -claims 4-8, 11.

It would have been obvious to one having ordinary skill in the art to have modified the binder composition of Chang to include bisulfite as claimed because Taylor teaches the incorporation reduces total emissions as cited above.

Per instant claims 1 and 11-13, the basis weight recitations, it is submitted the optimal and/or claimed values of the respective material would have been obvious to the skilled artisan at the time the invention is made since it has long being held that such discovery, such as an optimum value of the respective result effective variable involves only routine skill in the art. In re boesch, 617 F.2d 272,205 USPQ 215(CCPA 1980).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (US 5914365) in view of Taylor et al (US 5578371), and further in view of Hummerich et al (US 6071994).

The combination is relied upon above.

While Chang teaches acrylic SMA and SBR copolymers, Hummerich is also provided for acrylic and the other variables in the list of instant claim 2.

Hummerich et al teaches that it is known in the art to utilize acrylic copolymer material and styrene in binder composition- col. 2, line 52; col. 3, lines 1-22 and lines 50-60; col. 5, lines 14-21;

col. 6, lines 15- 20; col. 9, lines 30-44; col. 10, lines 20-45. It is noted the reference teaches its binder mixed with formaldehyde- col. 9, lines 50-68, col. 10, lines 9-13.

It would have been obvious to one having ordinary skill in the art to have modified the combination to include the resins as claimed because Hummerich teaches they provide short drying times and high strength as cited above.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (US 5914365) in view of Taylor et al (US 5578371), and further in view of Nishibara et al (US 5178706).

The combination is relied upon above.

While Chang teaches acrylic SMA and SBR copolymers, Nishibara is also provided for acrylonitrile in the list of instant claim 8-10.

Nishibara teaches SBR and acrylonitriles are well known common rubbers for polymer fibers (col. 2, lines 20-65).

It would have been obvious to one having ordinary skill in the art to have recognized the combination resins as claimed (SBR acrylonitrile types) are as Nishibara teaches well known alternatives for polymer polyester fibers (Abstract, col. 2, lines 20-65).

(10) Response to Argument

Concerning the Appellant's arguments over the objection and 112 rejections, in view of further consideration, the objection and 112 rejections are withdrawn.

Appellant argues the consisting essentially of language, arguing the interpretation alleging it means an exclusion of fiberglass. However, Appellant has not proven what problems are solved to show a significant difference solved in terms of data. Said language does not exclude fiberglass unless Appellant proves that it does not materially effect the invention.

The Declaration and Exhibit was considered, however, found not to be commensurate in scope with the claims. Appellant did not compare his claimed invention with the prior art, such as Chang, to show any expected result with bisulfite compound. Taylor was used to teach the bisulfite compound amounts as set forth above for the prime reason of reducing formaldehyde emissions, which is clear motivation.

Appellant makes arguments to the use of Chang, i.e. never mentioning measuring hot tensile strength, thermal dimensional stability, good hot strength, use of glass fibers and thus alleges the article of Chang is significantly different. Such argument is not persuasive because Chang need not teach inherent properties that naturally flow from the same materials used. Chang teaches the same formaldehyde composition binder and using the option of organic polymer (polyester, same as Appellant's specification, see Chang col. 6, lines 50-68, and col. 7 lines 40-68) and thus in combination of Taylor's similar formaldehyde binder composition employing bisulfite for lowering formaldehyde emissions (despite Appellant's arguments that hindsight was used), one having ordinary skill in the art would expect the combination to have all the properties as Appellant until proven otherwise.

Appellant continues to argue the instant invention is different, arguing Taylor teaches any polymer and methods won't result in the same result (and when subjected to hot asphalt), however, Appellant is not claiming a method and the binder material is not relied upon by Taylor as Chang teaches the binder. Moreover, Appellant has not shown any data to be convincing.

Appellant argues Hummerich in that there is no motivation for using the binders of claim 2 (acrylic, SMA, and SBR copolymers), however Hummerich explicitly states said binders are mixed with formaldehyde and thus would provide shorter drying times and high strength as taught by Hummerich see col. 2, lines 28-35, col. 4, lines 1-15, col. 9, lines 60-68, col. 10, lines 9-30 and as

noted above. That it also teaches a formaldehyde free composition is not what the reference was relied upon for.

Appellant argues Nishibara that the binder is not taught. However, Nishibara was used to teach the binder of claims 8-10, not the fiber as alleged by Appellant. SBR and acrylonitriles are well known rubbers, which means they are binders, for binding polymer fibers (col. 2, lines 20-65), not that the rubber binders are fibers, but that they are used to essentially bind the fibers, hence the name "binder". As explained in col. 2, lines 48-68, the resins are for the fiber-reinforced sheet, the reason the fiber list (col. 2, lines 20-41) are in a separate paragraph from the resin list (col. 2, lines 48-68). The properties of hot strength does not need to be taught by the prior art because the same materials are employed and thus one having skill in the art would expect the inherent properties to flow from the material. The test for obviousness is what the combined teachings of the prior art references would have suggested to those of ordinary skill in the art. *In re Young*, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). This test requires us to take into account not only the specific teachings of the prior art references, but also any inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). With regard to the claimed hot strength and elongation properties, when the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a prima facie case of either anticipation or obviousness will be considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The *prima facie* case can be rebutted by evidence showing that the prior art

products do not necessarily possess the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977). When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP §§ 2112-2112.02.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Tamra L. Dicus/

Tamra L. Dicus

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